

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions, and listings, of claims in the captioned patent application:

Listing of Claims:

1-38. (Cancelled)

39. (Currently Amended) An implantable component of a cochlear implant system comprising:

a housing configured to be implanted in a recipient, said housing having therein receiver electronics and stimulator electronics configured to output ~~one or more~~ stimulation signals; and

a first electrode assembly having first and second longitudinally extending contiguous regions, wherein said first region is connected to said housing along an axis of rotation of said housing, and wherein said second region is configured to be at least partially implanted into a cochlea of the recipient to deliver said stimulation signals to the cochlea ~~in accordance with said one or more stimulation signals~~,

wherein said housing and said first region are configured such that following implantation of said second region into the cochlea, said housing is rotatable between first and second implant orientations about said axis of rotation of said housing ~~an axis of said housing that is substantially aligned with a longitudinal axis of said first region~~, and such that said second region implanted in the cochlea remains substantially stationary during said rotation and the locations of said receiver electronics are different in the first and second implant orientations.

40. (Currently Amended) The implantable component of claim 39, ~~wherein said first and second regions each have substantially circular cross sections, and wherein said housing is rotatable about an axis of rotation that is substantially aligned with a longitudinal axis of said first region that extends through the center of said first region.~~ of said first electrode assembly.

41. (Currently Amended) The implantable component of claim 39, wherein said housing comprises ~~an edge~~ a lateral surface that is most proximate the cochlea when said housing is in said first implant orientation, and wherein said first region of said first electrode assembly is connected to said lateral surface edge of said housing ~~most proximate the cochlea~~.

42. (Currently Amended) The implantable component of claim 39, wherein said housing comprises ~~an edge~~ a lateral surface that is most proximate the cochlea when said housing is in said first implant orientation, and wherein said first region of said first electrode assembly is connected ~~to an edge~~ to a surface of said housing that is adjacent said lateral surface edge most proximate the cochlea.

43. (Previously Presented) The implantable component of claim 39, wherein said housing is at least partially formed from a resiliently flexible material.

44. (Previously Presented) The implantable component of claim 43, wherein a region adjacent one or more edges of said housing is resiliently deformable.

45. (Currently Amended) The implantable component of claim 39, wherein said housing is substantially symmetrical about a plane that is ~~parallel to said~~ parallel to a longitudinal axis of said first region.

46. (Currently Amended) The implantable component of claim 39, wherein said housing is substantially symmetrical about a plane that is ~~perpendicular to said~~ perpendicular to a longitudinal axis of said first region.

47. (Currently Amended) The implantable component of claim 39, wherein said stimulator electronics configured to output one or more stimulation signals comprise a stimulator unit.

48. (Currently Amended) The implantable component of claim 39, wherein said cochlear implant system comprises an external component, and wherein said ~~implantable housing further comprises~~ receiver electronics ~~is~~ configured to receive signals from said external component via a radio frequency link.

49. (Currently Amended) The implantable component of claim 48, wherein said receiver electronics configured to receive signals ~~comprise~~ comprises a receiver coil ~~positioned on said housing.~~

50. (Currently Amended) The implantable component of claim 48, wherein said receiver electronics configured to receive signals are ~~further~~ is further configured to allow transcutaneous bidirectional data transfer between said implantable component and said external component.

51. (Currently Amended) The implantable component of claim 39, wherein said cochlear implant system further comprises an external component having a microphone configured to receive an input sound, and wherein said stimulator electronics comprise:
a signal processor configured to convert the input sound into a coded signal; and
a stimulator unit configured to convert said coded signal into said one or more stimulation signals.

52. (Previously Presented) The implantable component of claim 39, wherein said implantable component further comprises a second electrode assembly having first and second longitudinally extending contiguous regions, wherein said first region of said second electrode assembly is connected to said housing, and wherein said second region of said second electrode assembly comprises one or more electrodes configured to be positioned in the recipient external to the cochlea.

53. (Currently Amended) The implantable component of claim 52, wherein said first region of said first electrode assembly is connected to ~~an edge~~ a first lateral surface of said housing, and wherein said first region of said second electrode assembly is connected to ~~an~~ a second lateral surface edge of said housing opposing said first region of said first electrode assembly.

54. (Currently Amended) The implantable component of claim 53, wherein ~~a longitudinal axis of~~ said first region of said second electrode assembly is substantially aligned along the same with a longitudinal axis of ~~as~~ said first region of said first electrode assembly.

55. (Currently Amended) A cochlear implant system comprising:

an implantable component comprising:

an implantable housing having therein stimulator electronics configured to output one or more stimulation signals,

a receiver ~~coiled~~ coil attached to said housing, and

a first electrode assembly having first and second longitudinally extending contiguous regions, wherein said first region is connected to said housing along an axis of rotation of said housing, and wherein said second region is configured to be at least partially implanted into a cochlea of the recipient; and

an external component having a transmitter coil configured to transmit signals from said external component to said receiver coil,

wherein said housing and said first region are configured such that following implantation of said second region into the cochlea, said housing is rotatable between first and second implant orientations about said axis of rotation of said housing ~~an axis of said housing that is substantially aligned with a longitudinal axis of said first region~~, and such that said second region implanted in the cochlea remains substantially stationary during said rotation and the locations of the receiver coil are different in the first and second implant orientations.

56. (Currently Amended) The implantable component of claim 55, ~~wherein said first and second regions each have substantially circular cross sections, and wherein said housing is rotatable about an axis of rotation of said housing that is substantially aligned with a longitudinal axis of said first region that extends through the center of said first region of said first electrode assembly.~~

57. (Currently Amended) The implantable component of claim 55, wherein said housing comprises ~~an edge~~ a lateral surface that is most proximate the cochlea when said housing is in said first implant orientation, and wherein first region of said first electrode assembly is connected to said lateral surface edge of said housing most proximate the cochlea.

58. (Currently Amended) The implantable component of claim 55, wherein said housing comprises ~~an edge~~ a lateral surface that is most proximate the cochlea when said housing is in said first implant orientation, and wherein said first region of said first electrode assembly is connected to ~~an edge~~ a surface of said housing that is adjacent said lateral surface edge most proximate the cochlea.

59. (Previously Presented) The implantable component of claim 55, wherein said housing is at least partially formed from a resiliently flexible material.

60. (Previously Presented) The implantable component of claim 59, wherein a region adjacent one or more edges of said housing is resiliently deformable.

61. (Currently Amended) The implantable component of claim 55, wherein said housing is substantially symmetrical about a plane that is parallel to a longitudinal ~~said longitudinal~~ axis of said first region.

62. (Currently Amended) The implantable component of claim 55, wherein said housing is substantially symmetrical about a plane that is ~~perpendicular to said~~ perpendicular to a longitudinal axis of said first region.

63. (Previously Presented) The cochlear implant of claim 55, wherein said external component further comprises:

a microphone configured to receive an input sound; and
a signal processor configured to convert the input sound into a coded signal,
wherein said transmitter coil is configured to transmit said coded signal to said receiver coil.

64. (Currently Amended) The cochlear implant of claim 55, wherein said stimulator electronics further comprise a stimulator unit configured to output one or more stimulation signals based upon said coded signals, and wherein said second region of first electrode assembly is configured to deliver stimulation to the cochlea in accordance with said one or more stimulation signals.

65. (Previously Presented) The cochlear implant of claim 55, wherein said receiver coil and said transmitter coil are further configured for transcutaneous bidirectional data transfer between said implantable component and said external component.

66. (Currently Amended) The cochlear implant of claim 55, wherein said external component further comprises a microphone configured to receive an input sound, and wherein said implantable component further comprises:

a signal processor configured to convert the input sound into a coded signal; and
wherein said stimulator electronics are configured to convert said coded signal into said one or more stimulation signals, and wherein said first electrode assembly is configured to deliver stimulation to the cochlea in accordance with said one or more stimulation signals.

67. (Previously Presented) The implantable component of claim 55, wherein said implantable component further comprises a second electrode assembly having first and second longitudinally extending contiguous regions, wherein said first region of said second electrode assembly is connected to said housing, and wherein said second region of said second electrode assembly comprises one or more electrodes configured to be positioned in the recipient external to the cochlea.

68. (Currently Amended) The implantable component of claim 67, wherein said first region of said first electrode assembly is connected to ~~an edge~~ a first lateral surface of said housing, and wherein said first region of said second electrode assembly is connected to ~~an~~ a second lateral surface edge of said housing opposing said first region of said first electrode assembly.

69. (Currently Amended) The implantable component of claim 68, wherein a ~~longitudinal axis~~ of said first region of said second electrode assembly is substantially aligned along the same ~~with a longitudinal axis of~~ as said first region of said first electrode assembly.

70.-73. (Cancelled)